IN THE CLAIMS

1. (currently amended). A ~~single step~~ process for the synthesis of nanoparticles of a phase pure ceramic oxide[[s]] of a single component system comprising one type of metal ion, said process comprising,

(a) preparing a solution containing the metal ions ~~in stoichiometric ratio~~ by dissolving ~~their soluble salts~~ a salt of the metal in an organic solvent or in water,

(b) preparing a precursor by complexing the metal ions with a complexing agent while keeping the ratio of the charges of the complexing agent ~~acid~~ to the charges of the metal ions as unity, wherein said precursor is formed in the solution and the solution comprises a nitrate and an ammonia content;

(c) adjusting the nitrate and ammonia ~~nitrate/ammonia~~ content ~~in~~ of the solution ~~system~~; and

(d) heating the solution ~~system~~ from room temperature to 250-300°C to produce a foam which subsequently ignites to provide a combustion product comprising the nanoparticles.

2. (currently amended). The ~~A~~ process as claimed in claim 1 wherein the ceramic oxide produced is ~~desired oxide contains one cation~~ selected from the group consisting of Al_2O_3, ZrO_2, TiO_2, HfO_2, MgO, and SiO_2.

3. (currently amended).The ~~A~~ process as claimed in claim 1 wherein the complexing agent is selected from the group ~~comprising~~ consisting of citric acid, EDTA and oxalic acid.

4. (currently amended).The ~~A~~ process as claimed in claim 1 wherein the salt of the metal is dissolved in an organic solvent and the nitrate and ammonia ~~the nitrate/ammonia~~ content in the solution ~~system~~ is adjusted by addition of ammonium nitrate ~~where the precursor is formed in an organic solvent~~.

5. (currently amended).The ~~A~~ process as claimed in claim 1 wherein the salt of the metal is dissolved in water and the nitrate and ammonia ~~nitrate/ammonia~~ content in the solution ~~system~~ is

adjusted by the addition of nitric acid and ammonia or ammonium nitrate ~~where the precursor complex is formed in water~~.

6. (cancelled).

7. (currently amended).The ~~A~~ process as claimed in claim 1 wherein the salt of the metal is ~~salts are~~ selected from the group consisting of alkoxides, nitrates, chlorides, sulphates, oxychlorides ~~or~~ and any other salts that are insoluble in an organic solvent.

8. (currently amended).The ~~A~~ process as claimed in claim 1 wherein the salt of the metal is water insoluble ~~oxides and carbonates of the desired metal~~ and is ~~are~~ dissolved in a suitable acid[[s]] prior to ~~use~~ step (a).

9. (currently amended).The ~~A~~ process as claimed in claim 1 wherein the organic solvent is selected from the group consisting ~~comprising~~ of alcohols, trichloroethylene and any other solvents capable of dissolving the complexing agent and ~~any one of~~ the salt of the metal ~~salts needed to form the desired oxide~~.

10. (currently amended).The ~~A~~ process as claimed in claim 9 wherein the alcohol is selected from the group consisting ~~comprising~~ of ethyl alcohol, methyl alcohol and isopropyl alcohol.

11. (cancelled).

12. (currently amended). The ~~A~~ process as claimed in claim [[11]] 1 wherein the heating is done on a sand bath or hot plate ~~sand bath/hot plate~~.

13. (new) The process as claimed in claim 8 wherein the salt of the metal is an oxide or carbonate salt.

DETAILED ACTION

Claims 1-5, 7-10 and 12 have been amended. Claims 6 and 11 have been cancelled. New claim 13 has been added.

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The step of heating the precursor to form a foam which subsequently ignites resulting in a combustion product has been added to step (d). Basis for the amendment can be found in the examples and in claim 11. Claim 11 has been cancelled.

The term "single step" has been removed from claim 1 and step(a) has been amended such that it is clear that a single type of metal ion derives from a single salt.

In step (b) the term "acid" has been replaced by "complexing agent" and step (b) has been amended such that the solution has a nitrate and ammonia content. Furthermore the term "system" has been replaced by the term "solution" in claims 1, 4 and 5.

Claim 6 has been cancelled and claim 7 has been amended such that it relates to a single salt and corrected to add the term "insoluble". Claim 8 has been corrected such that water insoluble salts are pretreated with acid prior to step (a). New claim 13 has been added such that the pretreated salts are oxides and carbonates (basis page 5 paragraph 8).

Finally claims 3, 9 and 10 have been amended such that they include the standard Markush language.

The Applicants submit that the present application is in condition for allowance and favorable consideration is respectfully requested.

Respectfully submitted,

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